

Clinical Research

Fall 2023

NEWSLETTER

ANNOUNCEMENTS

Move to New Building

111 North Maplemere Suite 100, Williamsville, NY 14221

OBERD to Patient IQ

Migration: October 15, 2023

Medical Student Publishing Discounts and Waivers

Click this link for details



MEDICAL STUDENT SUMMER RESEARCH PROGRAM

On May 31st, a record number of 52, first-year medical students embarked on the 9-week UB Orthopaedics Summer Research Program. The program has an enriching and focused curriculum that exposes orthopaerdic focused students to basic biomedical, translational, or clinical research. Faculty mentors and research staff train and supervise each student on a project. In addition, weekly seminars given by experts in the field cover topics in clinical research fundamentals, biostatistics, literature searches, research compliance, trial design, as well as abstract, poster and manuscript preparation and presentation. At the conclusion of the program, students present their research and receive a Certificate of Completion for participation.

Initiated in 2014 by Dr. Robert Ablove, the program provides scholars with the opportunity to participate in research and enhance career building skills required for successful entrance into residency. Additionally, Chairman's Grants of \$750 each were made available and awarded to successful applicants. "I'm so proud of how this program has grown. It's very encouraging to see such enthusiasm at the start of what will be wonderful careers." said Dr. Ablove. For more information about the Summer Research Program, contact Lin Feng, at 716-248-1756, or, orthosummerresearch@buffalo.edu

UPCOMING DEADLINES

American Medical Society for Sports Medicine

2023 Advanced Team Physician Course December 6- December 8 Salt Lake City, UT Click this link for other conference dates

SoCRA Meeting

Friday, September 29- October 1, 2023 Montreal, QC Canada *Click this link for details*

HIGHLIGHTS



Study Highlight

The Knee Arthroplasty Activity Trial (KArAT) funded by NIH/ Sponsor: Brigham and Women's Hospital is currently in the recruitment phase. We are working with Principal Investigator, Dr. Nodzo and Investigators Dr. Pavlesen & Dr. Rachala to recruit patients who are undergoing unilateral TKRs into three study arms. KArAT aims to determine the effectiveness of behavioral coaching on certain physical outcomes post TKR. Patients are asked to participate in physical tests, pain tests, questionnaires, as well as walking to develop a baseline before surgery. Post surgery, certain study arms will be given a FitBit and step goals to reach. Since May 2023 we have had 23 baseline visits and 11 patients randomized to the study. If you have any questions, you can contact KArAT certified RAs Alexa, Ella and Andrea. We'd like to thank Pete Tonsoline, PT, ATC for all his help with the musculoskeletal assessment training and certification.

Staff Highlight

Andrea is a 2021 MPH graduate of Daemen University with a focus in Epidemiology. Prior to her master's program, she received a Bachelor's in Health & Wellness from the State University of New York at Buffalo with a focus in exercise science and nutrition. Andrea will primarily work with the Sports Medicine research team supporting ECMC COPING, COSMIC, and KArAT. One thing Andrea loves about research is the population level impact this work provides. Outside of the research office Andrea enjoys spending time with her two cats and dog, hiking NYS trails, and reading.



Research Assistant



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Congrats Grads!

Jessica Block, MD Andrew Lee, MD Carter Linborg, MD Tariq Radwan, MD Nicholas Van Roekel, MD

Newly Awarded Grants

Surgery v Conservative Care for Meniscal Tear After Unsuccessful PT: An RCT (COSMIC)

PI: Katz (Brigham & Womens Hospital); Bisson (Buffalo site PI)
Funded by NIAMS (R34); starting, 01/23 (\$22,000/year @ 2 years)

Building the Infrastructure to Increase Diversity in Degenerative Knee Clinical Trials

 PI: Bisson, Co-I: Brownell; Funded by ECMC/ Health for Erie County, Inc, starting 02/23 (\$22,371/year @ 1 year)

WNY CPR/AED Sports Community Outreach Training

 PI: Bisson; Dinse (manage); Funded by JSMBS and VPRED, starting 03/23 (\$150,000 @ 1 year)

Clinical Shoulder Research Grant Optimizing Antibiotic-Cement Efficacy in Peri Prosthetic Shoulder Infection

 PI: Matthew DiPaola; Funded by OREF/ASES/Rockwood; starting 04/23 (\$50.000 @ 1 year)

Exercise Reset for Concussion- Modifying the Buffalo Concussion Protocol for Application in a Military Environment.

• PI: Leddy; Co-I: Haider, Funded by DOD CDMRP, starting 01/23 (\$4,800,000 @ 4 years)

STATSTICS: REGISTRIES

<u>Trauma</u>

- ECMC Fractures & Trauma (PI: Anders) 05/16-06/22; N= 18,295
- ECMC Ankle Fractures (PI: Rohrbacher; Co-PI: Kocan) 01/12-12/22; N= 1,191
- ECMC/BGH Hip Fractures & Cardio Consult (Pl: Anders; Co-I: Joseph) 2020-; N=1,157
- ECMC Trauma, Fractures & Sarcopenia (Pl: Anders; Co-l: Touban) 2018-; **N= 628** <u>Upper Extremity</u>
- Shoulder Registry (Pl: Duquin) 12/19- 05/23; **N= 2,130** *loints*
- Computer Assisted TKA (PI: Phillips); N= 4,062
- Total Joint Arthroplasty & Anesthesiology 1-day surgery (PI: Phillips); N= 376
- Anterior Cruciate Ligament Reconstruction (PI: Bisson) 2005-2023; N= 1,576
- Arthroscopic Partial Meniscectomy Registry (PI: Bisson) 2020-2023; N= 288 <u>Concussion</u>
- Concussion (PI: Haider) 2021-2023; N= 366

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Questions, Comments, or Suggestions? Contact Us! Andrea Carland, MPH | Icarland@buffalo.edu or 716-906-5932

Epidemiology Corner

To quantify disease burden in clinical research we use the following epidemiological measures:

- 1) Frequency: How much disease is present? Measures: prevalence (number of people with the disease at the specific point in time) & incidence (number of people who get the disease during a specified period of time; number of new cases).
- **2) Association:** Is there an association between exposure and health outcomes? Measures: risk difference, risk ratio and odds ratio.
- **3) Potential impact:** How much of a disease or certain outcome is caused by a particular risk factor? Measures: attributable proportion and attributable risk.
- **4) Survival:** What is the time interval to a particular outcome? Measures: absolute survival time or absolute risk reduction, relative risk reduction, the number needed to treat, progression or event-free survival time.

References: https://postgraduateeducation.hms.harvard.edu/trends-medicine/using-epidemiological-tools-evaluate-human-disease; https://www.cdc.gov/reproductivehealth/data_stats/glossary.html

Recent Publications

Journal Articles

Corrado C, Willer BS, McPherson JI, Storey E, Sisto SA, Master T, Wiebe D, Grady M, Mannix R, Meehan W, Leddy JJ, Haider MN. Adolescents with more oculomotor and vestibular signs of sport-related concussion benefit from aerobic exercise: an exploratory analysis. *Journal of neurotrauma*. 2023 In press.

Heindel, K., Smoak, J., Kocan, J., Cossell, C., Haider, M. N., Levy, B. J., & Bisson, L. (2023). Stiffness and Instability After MPFL Reconstruction Using a Fluoroscopic Versus Open Technique to Localize the Femoral Attachment Site: A Systematic Review and Meta-analysis. *Orthopaedic Journal of Sports Medicine*, 11(6), 23259671221148482. https://doi.org/10.1177/23259671221148482

Lee A, Lucasti C, Scott MM, Patel DV, Kohut K, Pavlesen S, Bayers-Thering M, Hamill CL. The Surgical Outcomes of Pedicle Subtraction Osteotomy per Different First Assistant: Retrospective Analysis of 312 Cases. J Am Acad Orthop Surg. 2023 In press.

Lucasti C, Haider, M, Marshall I, Thomas R, Scott, M, Ferrick M. Interand intra reliability of Cobb angle measurement in pediatric scoliosis using PACS (picture archiving and communication systems methods) for clinicians with various levels of experience. *ASJ*. February 2023 In press.

Van Roekel, N, Radford, L, Henry M, Pavlesen S, Rachala SR. Extensor Mechanism Centralization Using Autograft Hamstring for Laterally Dislocating Patella Following Total Knee Arthroplasty: A Case–Series Report Study. *Orthopedics*. 2023;10:1-3.

Vinod A, Listopadzki T, Kohut k, PavlesenS, Crane J, Feng L, Duquin TR, DiPaola MJ. An In Vitro Analysis of Various Antibiotic Cement Combinations Against Cutibacterium Acnes. *Seminars in Arthroplasty: JSES*. 2023 In press.